

AM4016102

BOOK EXPLOITATION

S/

Kochetkov, Viktor Terent'yevich; Polovko, Anatoliy Mikhaylovich;
Ponomarev, Valentin Mikhaylovich

Theory of remote-control and rocket-homing systems (Teoriya sistem
teleupravleniya i samonavedeniya raket). Moscow, Izd-vo "Nauka",
64. 536 p. illus., biblio., index. 6300 copies printed.

TOPIC TAGS: rocket, rocket guidance system, rocket control system,
homing, beam rider guidance, self contained guidance, rocket re-
mote control system, guided rocket, unguided rocket, rocket motion
stability, linear guidance system, nonlinear guidance system,
rocket stabilization system

PURPOSE AND COVERAGE: This book is intended for technical personnel
concerned with problems of automatic guidance of rocket flights,
and for students of advanced courses in schools of higher educa-
tion. It presupposes that the reader is cognizant of the funda-
mentals of automation and radio electronics. This is an attempt
to give a systematic presentation of various published Soviet and
non-Soviet data on the theory of rocket guidance systems. It

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contains the elements of the dynamic theory of remote-control and homing of rockets and is based on the theory of stationary systems as applied to air-to-air, air-to-surface, surface-to-air, and surface-to-surface rockets. The authors thank V. I. Chernetskiy and B. M. Makar'yev, and K. P. Povedakiy who contributed to the book and B. N. Peroyskiy and P. S. Petrov for their advice.

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SUB CODE: CH OC

SUBMITTED: 28Feb64

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DATE ACQ: 11Jun64

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PONOMAREV, Valentin Mikhaylovich; ABASHEVA, D.A., red.

[Theory of the guidance of space vehicles] Teoriia upravle-
niia dvizheniem kosmicheskikh apparatov. Moskva, Nauka,
1965. 455 p. (MIRA 18:7)

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BOOK EXPLOITATION

Kochetkov, Viktor Terent'yevich; Polevko, Anatoliy Mikhaylovich;
Ponomarev, Valentin Mikhaylovich

Theory of remote-control⁹ and rocket-homing systems⁹ (Teoriya sistem
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TOPIC TAGS: rocket, rocket guidance system, rocket control system,
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and for students of advanced courses in schools of higher educa-
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contains the elements of the dynamic theory of remote-control and homing of rockets and is based on the theory of stationary systems as applied to air-to-air,⁵ air-to-surface,³ surface-to-air,² and surface-to-surface rockets.¹³ The authors thank V. I. Chernetskiy and B. M. Makar'yev, and K. P. Povodskiy who contributed to the book and B. M. Perovskiy and P. S. Petrov for their advice.

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SUBMITTED: 28Feb64

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POBOMAREV, V.M.

Reconditioning cast-iron tractor parts. Torf.prom. 33 no.2:37 '56.
(MLRA 9:6)

1.Nasiyevskoye torfopredpriyatiye.
(Tractors--Repairing)

PONOMAREV, V.M.

DECEASED
c1961

1961/2

SEE ILC

GEOLOGY

PONOMAREV, V.N. (Novoshakhtinsk, Rostovskoy oblasti, pos. shakhty Zapadnaya-Kapital'naya, 1-y Inzhenernyy per., d.2)

New tendon suture and its modification. Vest. khir. 82 no.6:128-131
Je '59. (MIRA 12:8)

1. Iz khirurgicheskogo otdeleniya (zav. - A.A. Ostapenko) medsan-
chasti No.3 (gl. vrach - Ye. N. Dinnershteyn) gor. Novoshakhtinska.
(SUTURES)

PONOMAREV, V.N.

Vertical gradients of the vertical component of a magnetic field and
the technique of measuring them. Prikl.geofiz. no.25:157-176 '60.
(MIRA 13:6)

(Prospecting--Geophysical methods)
(Magnetic measurements)

PONOMAREV, V.N.

Using ferrosound magnetometers for investigating bore holes.
Geofiz.prib. no.8:76-84 '61. (MIRA 15:7)
(Magnetometer)

PONOMAREV, V.N.

3(6,10); 9(6)

PHASE I BOOK EXPLOITATION

SOV/1924

Akademiya nauk ^{p.3} SSSR. Ural'skiy filial. Gorno-geologicheskii institut.

Geofizicheskiy sbornik, no. 2. (Collected Papers on Geophysics, Nr. 2.)
Sverdlovsk, 1957. 207 p. Issued also as its Trudy, vyp. 30
Errata slip inserted. 2,400 copies printed.

Resp. Ed.: Yu.P. Bulashevich, Doctor of Physical and Mathematical
Sciences; Ed.: I.M. Demin; Tech. Ed.: L.A. Izmodenova.

PURPOSE: This collection of articles is intended for field geo-
physicists and exploration party leaders.

COVERAGE: These articles discuss many new techniques and some theore-
tical considerations involved in gravitational, magnetic, seismic,
electrical and gamma radiation exploration methods. In 4 articles
V.N. Ponomarev discusses various aspects of magnetometry;
N.I. Khalevin - the study of elastic wave propagation; and
G.M. Voskoboynikov - gamma radiation. Extensive bibliographies
accompany each articles.

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Collected Papers (Cont.)

SOV/1924

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- Karasik, M.A., and V.A. Bugaylo. The Genetic Relationship of
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Basic Nature 173
- Timofeyev, A.N. Computations of the Interpretative Grids for
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- Timofeyev, A.N. Graphic Interpretation of Geophysical
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AVAILABLE: Library of Congress

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MM/ad
6-15-59

PONOMAREV V.M.
PONOMAREV, V.M.; SUVOROV, Ye.A.

Magnetometric apparatus for boreholes. Izv. vost. fil. AN SSSR no.9:
46-52 '57. (MIRA 11:1)

1. Ural'skiy filial AN SSSR.
(Prospecting--Geophysical methods)
(Magnetometer)

PONOMAREV, V.N.

Curve of metasomatic contact magnetization curve of a magnetite
specimen. Trudy Gor.-geol. inst. no.30:84-85 '57. (MIRA 11:7)
(Magnetite--Magnetic properties)

PONOMAREV, V.N.

Portable saturation magnetometer. Trudy Gor.-geol. inst. no. 25: 27-32
'57. (MIRa 11:7)

(Magnetometer)

PONOMAREV, V.N.

Applicability of magnetometry in prospecting for sulfide deposits
in the southern part of the Trans-Ural region. Trudy Gor.-geol. inst.
no.30:93-96 '57. (MIRA 11:7)
(Ural Mountain region--Sulfides) (Magnetic measurements)

ONOMAREV, V.N.

Effect of temperature on magnetic compensator devices. Trudy Gorn.
geol. inst. no.30:97-99 '57.

(MIRA 11:7)

(Magnetic measurements)

SOV-49-58-6-9/12

AUTHORS: Ponomarev, V. N. and Suvorov, Ye. A.

TITLE: Magnetic Surveying with Drill-Holes (Skvazhinnaya magnitorazvedka).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1958, Nr 6, pp 787-790 (USSR)

ABSTRACT: Measurements of the Earth's magnetic field intensity made in drill-holes in weakly magnetic strata, do not really give new information in comparison with velocity logging of magnetic susceptibility (Ref.1). However, this does not apply to all types of strata (Ref.2) and, for example, a survey of strongly magnetic ore beds with this method can give information on ore bodies both horizontally and downwards. Several beds of iron ore were worked over in 1956 with magnetic apparatus for measuring the anomalous vertical component of magnetic field intensity Z_a and the magnitude of the magnetic susceptibility of rocks κ , in drill-holes. A block diagram of the apparatus is given in Fig.1. There are seven basic parts: (1) low frequency generator; (2) amplifier and detector; (3) potentiometer; (4) registering

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SOV-49-53-6-9/12

Magnetic Surveying with Drill-Holes.

device; (5) desk control; (6) μ recorder; (7) magneto-sensitive element. The element (7) is described in Ref.3. The intensity measured is passed from (7) to (5) and then via (2) to a null-indicator. Recording the result is made by a compensation method. Measurements of Z_a can be carried out on several different scale sizes. The Z_a trace is continuous for all depths of drill hole. Measurements of magnetic susceptibility are made on an alternating current bridge together with an amplifier, a detector, a potentiometer (type EP-1) and a registering device (type ES-19). The magnetic susceptibility is recorded with the aid of an induction coil in one of the arms of the bridge. As the susceptibility of the rock formations varies, the resistance and, hence, the induction of the recording apparatus changes. The recording trace can be varied in scale between wide limits and gives the magnetic susceptibility and the vertical component of the Earth's magnetic field simultaneously. The energy source is an audio-frequency generator. The bridge and the element are enclosed in a two metre long casing divided into two parts. The casing has internal and external diameters of 55 mm and 67 mm respectively. The element is mounted on gimbals in the lower section and is surrounded with oil to damp its

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Magnetic Surveying with Drill-Holes.

motion. The susceptibility recorder and the other parts of the bridge are in the upper section at a distance of 1.5 m. Figures 2 and 3 give magnetograms for two holes in Small Kuybas (Malyy Kuybas) iron deposits consisting mainly of magnetite. Fig.4 gives a characteristic geological cross-section constructed by I. P. Ustinov, showing the curves obtained by a surface magnetic survey. The magnetic anomaly on the surface has a magnitude of 23 000 gamm. In agreement with Fig.4, the western boundary of ore bodies can be traced to hole 78. Hole 96 indicates the absence of such bodies - the magnetic measurements made here are given in Fig.2. The magnetic susceptibility confirms the absence of ore bodies by showing no local anomalies. The Z_a curve shows an intense negative anomaly between 275 and 296 m which reaches 15 000 gamm. Before and after this there is a positive anomaly of up to 7000 and 9000 gamm. This can be explained by a magnetic ore body a small distance away from drill-hole 78 at a depth of 217-242 m extending westwards more or less as shown in Fig.4 (continuous line). Curve Z_a can also be used to

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Magnetic Surveying with Drill-Holes.

correct data on other geological formations intersected by hole 78. Thus the uppermost ore body must be a good deal more eastwards than it is shown in Fig.4 (i.e. further away from 96) since otherwise an intensity anomaly would be observed. Fig.3 gives an example of velocity logging in a scarn zone which is fixed, in the interval 114.5 - 131.8 m by the anomalies of Z_a and μ . The amplitude of negative values of Z_a reaches 30 000 gamm, whilst susceptibility sometimes reaches 0.120 - 0.125 C.G.S. An increase in Z_a on entering and leaving the magnetic scarn regions is hardly observable. There is another anomaly a little higher with a minimum value at 95.5 m of 14 000 gamm. The magnetic susceptibility is small and, hence, it can be assumed that the anomaly is produced by a lateral ore body.

Conclusion 1. The work confirms the application of magnetic velocity logging surveys to strongly magnetic ore beds.
2. By using magnetometers in lateral drillings deep beds can be found which cannot be observed by surface methods.
3. Magnetic measurements in drill-holes increase the quantity and accuracy of geological mapping. 4. The major drawback,

Card 4/5 at the moment, lies in discovering in what direction the ore

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Magnetic Surveying with Drill-Holes.

body is situated relative to the drilling. In the future, it will obviously be necessary to use the horizontal component of the magnetic field, but this leads to many difficulties. There are 4 figures and 2 Soviet and 1 English references.

ASSOCIATION: Ural'skiy Filial AN SSSR, Institut geofiziki (Urals Branch, Academy of Sciences, USSR, Geophysical Institute)

SUBMITTED: May 27, 1957.

1. Geology 2. Terrestrial magnetism--Measurement 3. Terrestrial magnetism--Intensity 4. Laboratory equipment--Applications

Card 5/5

ACCESSION NR: AP4030338

S/0049/64/000/003/0360/0369

AUTHORS: Ponomarev, V. N.; Bakhvalov, A. N.

TITLE: The use of measurements on internal magnetic field to determine the attitude of tabular bodies

SOURCE: AN SSSR. Izv. Ser. geofiz., no. 3, 1964, 360-369

TOPIC TAGS: magnetic field, magnetic susceptibility, borehole investigation, geophysical method

ABSTRACT: The authors show the relationships among components of the internal field of a body, the vertical and horizontal components, the dip angle of a tabular body, and the magnetic susceptibility. From these, nomograms are plotted for different values of susceptibility, for different strikes and dips of the body, and for variations in magnetizing field. By means of these nomograms (which are given in the paper), it is possible to determine the attitude of a tabular body by knowing three mutually perpendicular components of the internal magnetic field or by knowing the vertical component and the magnetic susceptibility. In the latter determination, however, it is necessary to know the strike of the body for unique

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ACCESSION NR: AP4030338

definition of dip, or else to know the dip for determination of strike. The measurements are generally made in a borehole, but such a hole drilled through strongly magnetic rocks gives rise to a secondary magnetic field, which substantially distorts the value and direction of the field within the body. The authors derive equations that permit computations free from the effect of the hole, and they illustrate their results by applying the method to a specific example. Orig. art. has: 7 figures and 38 formulas.

ASSOCIATION: Akademiya nauk SSSR, Ural'skiy filial Institut geofiziki (Academy of Sciences SSSR, Ural Branch, Institute of Geophysics)

SUBMITTED: 26Apr63

DATE ACQ: 29Apr64

ENCL: 00

SUB CODE: ES

NO REF SOV: 002

OTHER: 000

Card 2/2

AUTHORS: Ponomarev, V.N. and Zakharchenko, V.F. SOV-132-58-9-8/18

TITLE: The Utilization of Measurements of the Magnetic Field in Prospecting Pits for the Determination of the Magnetization of Rocks Under Conditions of Their Natural Occurrence (Ispol'zovaniye izmereniy magnitnogo polya v shurfakh dlya opredeleniya namagnichennosti gornykh porod v usloviyakh ikh yestestvennogo zaleganiya)

PERIODICAL: Razvedka i okhrana nedr, 1958, Nr 9, pp 33-35 (USSR)

ABSTRACT: The intensity of the magnetization of minerals can be determined by the examination of core samples taken from prospecting pits, but, as the magnetizing component is not evenly distributed, the obtained results will not show the real degree of magnetization. The authors propose a method of calculation of the degree of magnetic intensity, by studying it under the conditions of natural occurrence of the minerals. Prospecting pits and bore holes can be used for this purpose. Analytical and graphical calculations are given in detail. The use of the MP-1 magnometer is recommended.

Card 1/2 There are 3 graphs and 1 Soviet reference.

SOV-132-58-9-8/18

The Utilization of Measurements of the Magnetic Field in Prospecting Pits
for the Determination of the Magnetization of Rocks Under Conditions of
Their Natural Occurrence.

ASSOCIATION: (UFAN)

1. Geology--USSR 2. Magnetic fields--Measurement 3. Minerals
--Sampling 4. Geophysical prospecting

Card 2/2

9 (9)

AUTHORS:

Bulkin, P. S., Solntsev, G. S.,
Ponomarev, V. N.

SOV/48-23-8-2/25

TITLE:

Investigation of Self-consistent Super High-frequency Impulse
Discharges in Air and of the Process of Their Rating

PERIODICAL:

Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959
Vol 23, Nr 8, pp 941 - 947 (USSR)

ABSTRACT:

In the first part of the present paper the experimental arrangement, fulfilling the following tasks is described: 1) The amplitude change of the reflected wave was captured in the wave guide. 2) The temporal change of linear measurement of the discharges was investigated by an electron-optical method. 3) The intensity of the luminosity of an arbitrary part of the discharge was studied by means of a photomultiplier. By means of a block scheme shown in figure 1 the experimental arrangement is discussed, and the method of work is explained by diagrams (Fig 2) and by 12 electron-optical photographs of the evolution of two discharges. The rating of the self-consistent discharge is investigated in the second part. The block scheme does not differ in principle from the one given in figure 1. The only difference is that the impulse generator produces

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Investigation of Self-consistent Super High-frequency SOV/48-23-8-2/25
Impulse Discharges in Air and of the Process of Their
Rating

so-called impulse packets. An oscillographic representation of the luminosity phenomena of the discharge and the observation of the changes of reflected waves is discussed. In discussing the experiments, it is ascertained that three stages of development of the discharge could be found. In the three stages the following is ascertained: In the first stage an increase of the electron concentration, in the second stage a rapid increase of the measurements of the discharge, and in the third stage a smaller increase of the measurements of the discharge. These three stages of the production of such discharges of from 1 to 40 mm Hg, were ascertained by the here developed method of complex investigation and with the packet method of work of the high-frequency generator a self-consistent discharge could be obtained. There are 7 figures and 9 references, 4 of which are Soviet.

ASSOCIATION: Moskovskiy gos. universitet im. M. V. Lomonosova, Fizicheskiy fakul'tet (Moscow State University imeni M. V. Lomonosov, Physics Department)

Card 2/2

POKHOMAREV, V.N.

Using electric logging method in prospecting for contact
zones. Razved.i okh.nedr 25 no.11:56-57 N '59.
(MIRA 13:5)

1. Sibirskiy filial AN SSSR.
(Logging (Geology)) (Ore deposits)

PONOMAREV, V.N.; BAKHVALOV, A.N.

Determining the spatial position of magnetic ore bodies.

Razved. i okh. nedr. 30 no.5:31-34 My '64. (MIRA 17:10)

1. Ural'skiy filial AN SSSR.

PONOMAREV, V.N. (Novo-Shakhtinsk, Rostovskoy oblasti, pos. shakhty
Zapadnaya-Kapital'naya, ul. Engel'sa, d.8-a)

Methodology of one-stage reposition of bone fragments in fractures
of the metacarpal bones. Ortop., travm. i protez. 26 no.2:65-66
F '65. (MIRA 18:5)

1. Iz khirurgicheskogo otdeleniya (zav. - A.A.Ostapenko) bol'nitsy
No.3 (glavnyy vrach - Ye.N.Dinnershteyn) Novo-Shakhtinska, Rostov-
skoy oblasti.

PONOMAREV, V.N.; GLUKHIKH, I.I.

Possibility of magnetic measurements for the evaluation of the
quality of iron ores in the Pervoural'sk deposit. Trudy Inst.
geofiz. UFAN SSSR no.3:103-109 '65.

(MIRA 18:8)

PONOMAREV, V.N.; BAKHVALOV, A.N.

Theory of the interpretation of an internal magnetic field for
bodies of ellipsoidal shape. Trudy Inst.geofiz.UFAN SSSR
no.3:111-124 '65.

(MIRA 18:8)

L 45925-66 EWT(1) IJP(c) AT

ACC NR: AP6028609

SOURCE CODE: UR/0057/66/036/008/1376/1382

AUTHOR: Ponomarev, V.N.; Solntsev, G.S.

ORG: Moscow State University im. M.V. Lomonosov, Physics Department (Moskovskiy gosudarstvennyy universitet, Fizicheskii fakul'tet)

TITLE: The propagation constant for waves in a rectangular waveguide containing a dielectric tube filled with plasma

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 8, 1966, 1376-1382

TOPIC TAGS: plasma diagnostics, waveguide, wave propagation, mathematic physics, RECTANGULAR WAVEGUIDE

ABSTRACT: The authors calculate the propagation constant for H₀₁ waves of a rectangular waveguide containing a hollow dielectric cylinder filled with a plasma whose density is such that the Langmuir frequency of the plasma is of the order of the frequency of the waves. The calculations were undertaken because of their possible applications in plasma diagnostics. It is assumed that the circumference of the dielectric cylinder is small compared with the wavelength, and the plasma is described by an expression for its complex dielectric constant that contains the Langmuir frequency and the electron collision frequency. The effect of the dielectric wall of the tube is calculated, and the final expressions for the real and imaginary parts of the propagation constant are given in a form suitable for direct application to plasma diagnostics. The propagation constant exhibits resonance behavior at a fre-

Card 1/2

UDC: 538.566.5; 533.9.07

L 45925-66

ACC NR: AP6028609

3

quency close to the Langmuir frequency of the plasma (the resonance frequency is shifted slightly by the presence of the dielectric wall of the tube). The experiments of P.S.Bulkin, V.N.Ponomarev, and G.S.Solntsev (ZhTF, 33, No.10, 1222, 1963) on confined plasmas in waveguides are discussed briefly and are interpreted with the aid of the derived equations. Orig. art. has: 28 formulas and 3 figures.

SUB CODE: 20

SUBM DATE: 11Jun65

ORIG,REF: 007

OTH,REF: 004

16
Card 2/2

L 04276-67

ACC NR: AP6013286

SOURCE CODE: UR/0413/66/000/008/0082/0082

AUTHORS: Ponomarev, V. N.; Glukhikh, I. I.; Drozdov, A. G. 2/

ORG: none B

TITLE: A gauge for controlling the parameters of hot products. Class 42, No. 180807

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 8, 1966, 82

TOPIC TAGS: measuring apparatus, ceramic manufacturing machinery, heat measurement, PRODUCTION ENGINEERING

ABSTRACT: This Author Certificate presents a gauge for controlling the parameters of hot products such as metal pipes (see Fig. 1). The gauge contains an induction coil and a heat-retaining casing with tubes for passing cooling liquid (say, oil). To increase the accuracy of measuring the controlled parameters at high frequencies, the gauge is provided with a nonmagnetic and electrically nonconductive (say, ceramic) tube. This tube protects the casing of the gauge against mechanical damage. The heat-retaining casing is made of a nonmagnetic and electrically nonconductive material, such as a ceramic or quartz.

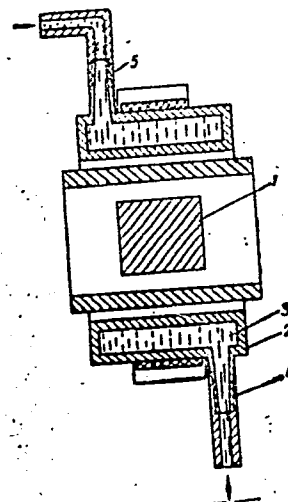
Card 1/2

UDC: 681.2.083.8.082.743:621.774.3

L 04276-67

ACC NR: AP6013286

Fig. 1. 1 - hot product; 2 - heat-retaining casing;
3 - cooling liquid; 4 and 5 - coolant tubes



Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 15Feb65

Card 2/2 ^{fv}

ACC NR: AP6029862

(N)

SOURCE CODE: UR/0096/66/000/009/0071/0074

AUTHOR: Shnee, Ya. I. (Doctor of technical sciences; Professor); Ponomarev, V. N. (Engineer; Dissertant); Garkusha, A. V. (Candidate of technical sciences)

ORG: Kharkov Polytechnical Institute im. V. I. Lenin (Kharkovskiy politekhnicheskii institut)

TITLE: On raising the efficiency of the after stages of turbines

SOURCE: Teploenergetika, no. 9, 1966, 71-74

TOPIC TAGS: turbine, gas turbine, turbine nozzle, turbine nozzle assembly, nozzle assembly, conic nozzle, ~~assembly~~, turbine stage

ABSTRACT: An investigation of the conical stages of a turbine, including stages with a nozzle assembly of new design, shaped according to the conical surfaces is described. On the basis of the experimental results, the following conclusions were made: a) the flow stream in the nozzle assembly of the conical stage sharply differs from that in the cylindrical stage. b) As a result of sharp difference of the really streamlined sections in the peripheral zone of the nozzle assembly geometry from the geometry of reference sections designed in conformance to the coaxial cylinder surface, the flow in such stages is converging-diffusing, and in separate zones it is diffusing, which causes increased losses in the nozzle assembly. c) the reprofiling of the nozzle assembly in accordance with the conical surfaces approxi-

Card 1/2

UDC: 621.165.003.1.001.5

ACC NR: AP6029862

mately replacing the flow surface, sharply decreases the energy losses in nozzle assembly, some what decreases the losses in the rotor, and significantly increases the efficiency of the whole stage. d) The proposed method of increasing the efficiency by reprofiling the nozzle assembly in accordance with flow surface is useful for stages with sudden opening of the flow area and any form of peripherally limiting surface. Orig. art. has: 6 figures and 2 formulas.

SUB CODE: . 21/ SUBM DATE: none/ ORIG REF: 003

Card 2/2

KREPCHUK, N.Ye.; PONOMAREV, V.N.; TOKAREV, L.Z.

Introducing an automatic machine for polishing grooves in
external rings of ball bearings. Biul. tekhn.-ekon. inform.
Gos. nauch.-issl. inst. nauch. i tekhn. inform. 18 no.10:
14-16 0 '65. (MIRA 18:12)

PONOMAREV, V.N., kand. tekhn. nauk

Printer-coders. Mekh. i avtom. proizv. 19 no.9:38-43
S '65. (MIRA 18:9)

PONOMAREV, V.N., kand. tekhn. nauk

Automation of linotype machines. Mekh. i avtom. proizv. 18
no.7:50-54 J1 '64. (MIRA 17:9)

PONOMAREV, V.N.

A correspondence conference of long-distance telephone operators.
Vest. sviazi 24 no.3:24 Mr '64. (MIRA 17:4)

1. Nachal'nik Kurskoy mezhdugorodnoy telefonnoy stantsii.

PONOMAREV, V.N.; BAKHVALOV, A.N.

Measurements of internal magnetic fields for determining
the elements of sheetlike beds. Izv. AN SSSR. Ser. geofiz.
no.3:360-369 Mr '64. (MIRA 17:3)

1. Institut geofiziki Ural'skogo filiala AN SSSR.

PONOMAREV, V.N.

Use of magnetic prospecting of boreholes to study iron ore
deposits. Uch. zap. SAIGIMSa no.8:223-227 '62. (MIRA 17:1)

1. Institut geofiziki Ural'skogo filiala AN SSSR.

BULKIN, P.S.; PONOMAREV, V.N.; SOLNTSEV, G.S.

Superhigh-frequency pulse discharge in long tubes. Zhur. tekh.
fiz. 33 no.10:1222-1226 0 '63. (MIRA 16:11)

1. Moskovskiy gosudarstvennyy universitet, kafedra elektroniki.

PONOMAREV, V.N.; GLUKHIKH, I.I.

Determining the iron content in magnetic ores from the amount of their magnetic susceptibility. Izv. AN SSSR. Ser. geofiz. no.8: 1225-1229 Ag '63. (MIRA 16:9)

1. Institut geofiziki Ural'skogo filiala AN SSSR. Predstavleno chlenom redaktsionnoy kollegii Izvestiy AN SSSR, Seriya geofizicheskaya, B.M.Yanovskim.

(Iron ores--Magnetic properties)

PONOMAREV, V.N.

Measuring the absorption of an electromagnetic wave in a superhigh-frequency pulse discharge. Prib. i tekhn. eksp. 7 no.3:96-98 My-Je '62. (MIRA 16:7)

1. Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta.
(Electromagnetic waves) (Electric discharges)

PONOMAREV, V.E.; KAPITANOV, V.I.

Magnetometers based on the optical pumping principle in
pairs of alkali metals. Geofiz. prib. no.9:3-8 '61.
(MIRA 15:11)

(Magnetometer)

39150
S/120/62/000/003/022/048
E039/E135

6.4710

AUTHOR: Ponomarev, V.N.

TITLE: Measurement of absorption of electromagnetic waves
in a pulsed microwave discharge

PERIODICAL: Priroda i tekhnika eksperimenta, no.3, 1962; 96-98

TEXT: The problem is difficult because absorption is often insignificant particularly at low pressures; reflection from the discharge region must also be taken into account. The apparatus consists of a magnetron which feeds a pulse of microwave oscillations into a waveguide containing a discharge vessel. Three attenuators attached to this waveguide feeding through detectors are arranged to provide signals proportional to the incident P_1 , reflected P_2 and transmitted P_3 power. The algebraic sum of these three signals P_4 when the polarity of the incident signal is reversed is obtained using an integrator, the signal from which is fed through an amplifier and displayed on an oscillograph.

$$P_1 - P_2 - P_3 = P_4$$

(1)

Card 1/2

Measurement of absorption of ...

S/120/62/000/003/022/048
E039/E135

P_4 is proportional to the absorbed power. Initially the apparatus is set up so that no signal is obtained from the integrator when there is no discharge. It is arranged that the detector which measures the reflected power is working on the linear part of its characteristic. The method of calibration and the balanced bridge circuit used for measuring the absorbed power are described. Using a У-103-И (U-103-I) amplifier and ОЧМ-1 (O SI-1) oscillograph the sensitivity is 0.03 db and the range of reliable absorption measurements is 0.03 to 1.0 db. There are 2 figures. X

ASSOCIATION: Fizicheskiy fakul'tet MGU
(Physics Division, MGU)

SUBMITTED: November 14, 1961

Card 2/2

PONOMAREV, V.N.

Importance of magnetic studies of test holes for the interpretation
of magnetic anomalies. Trudy Gor.-geol. inst. UFAN SSSR no. 32:357-
361 '59. (MIRA 14:5)

(Magnetic anomalies)

PONOMAREV, V.N.; ZAKHARCHENKO, V.F.

Determining the azimuth of a magnetized ball. Prikl. geofiz. no.27:
171-174 '60. (MIRA 13:12)

(Prospecting--Geophysical methods) (Magnetic fields)
(Azimuth)

86114

S/112/59/000/012/040/097
AO52/A001

9.6000 (1024, 1099, 1159)

Translation from: Referativnyy zhurnal, Elektrotehnika, 1959, No. 12, p.139,
24843

AUTHOR: Ponomarev, V.N.

TITLE: Portable Saturation Magnetometer

PERIODICAL: Tr. Gorno-geol. in-ta, Ural'skiy fil. AN SSSR, 1957, No. 30, pp.
87-92

TEXT: Portable saturation magnetometer of PM-3 (PM-3) type developed by the Ural branch of the USSR Academy of Sciences is intended for carrying out ground geophysical investigations under field conditions. The functioning of the device is based on the nonlinearity of magnetization curve of ferroalloys at saturation. The principal elements of the circuit are: an audio generator, circuit of the magnetosensitive element, valve voltmeter, compensation circuit. The audio generator supplies 1000-cycle current to the bridge circuit of the magnetosensitive element; the output voltage of the latter is supplied to the differential valve voltmeter. In the absence of an external magnetic field peak-shaped voltage with symmetrical half-waves comes in the input of the valve voltmeter; the reading of the

Card 1/2

PONOMAREV, V.P.

Small-size construction of a vacuum titanium pump. Prib. i tekhn.
eksp. 8 no.6:143-145 N-D '63. (MIRA 17:6)

1. Nauchno-issledovatel'skiy institut yadernoy fiziki,
elektroniki i avtomatiki Tomskogo politekhnicheskogo instituta.

11 I

THE EFFECT OF LEAD NITRATE ON THE MUTATION PROCESS IN *DROSOPHILA MELANOGASTER*. V. P. Ponomarev. *Biol. Zhur. U. S. S. R.* 6, 60-66 (in English; 79-85) (1937). — Sald. $Pb(NO_3)_2$ soln. has about the same weak destructive effect toward *Drosophila melanogaster* eggs as distd. H_2O . Lethal mutations are produced at a higher rate than in the controls. S. A. Karjala

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSING AND PROPERTY INDEX																																																			
<p><i>ca</i></p> <p>The effect of lead nitrate on the process of mutation in <i>Drosophila melanogaster</i>. II. Autosomal mutations. V. P. Ponomarev. <i>Biol. Zhur.</i> 7, 610-33 (in English, 634) (1938); <i>H. C. A.</i> 33, 2592. While satd. soln. of $Pb(NO_3)_2$ affects the mutation process in the eggs of <i>Drosophila melanogaster</i>, there is no great difference between the effect of $Pb(NO_3)_2$ and that of distd. water in causing the death of the embryos. W. R. Henn</p> <p><i>II</i></p>																																																			
<p>ASD-31A METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			

~~www.cia-rdp.com~~
PONOMAREV, V.P., kandidat biologicheskikh nauk.

Excursion to a sheep breeding farm. Est. v shkole no.4:75-78
Jl-Ag '54. (MIRA 7:8)

1. Kalininskiy pedagogicheskiy institut.
(Sheep breeding) (School excursions)

PONOMAREV, V.P., doktor tekhnicheskikh nauk, professor.

Review of the book "Investigation of the stability of landslides in homogeneous clayey soils". L.P.Petrova-IAsiunas. Reviewed by V.P.Ponomarev. Transp. stroi. 5 no.9:30-31 N '55. (MIRA 9:Z) (Railroad engineering) (Landslides) (Petrova-Yasyunas, L.P.)

ACC NR: AT7003998

SOURCE CODE: UR/0000/66/000/000/0123/0131

AUTHOR: Goncharov, V. Ya.; Moskalev, V. A.; Okulov, B. V.;
Ponomarev, V. P.; Skvortsov, Yu. M.; Slupskiy, A. M.; Shashov, V. V.;
Shestakov, V. G.

ORG: none

TITLE: Stereobetatron for 15 Mev

SOURCE: Mezhvuzovskaya konferentsiya po elektronnyim uskoritelyam. 5th,
Tomsk, 1964. Elektronnyye uskoriteli (Electron accelerators); trudy konferentsii.
Moscow, Atomizdat, 1966, 123-131

TOPIC TAGS: stereobetatron, betatron, *mev accelerator*

ABSTRACT: A two-chamber 15-Mev stereobetatron was built in the Tomsk
Polytechnic Institute; it is designed for two cross bremsstrahlung beams with a
dose rate of 1000 r/min-m in each beam. The electromagnet and pulsed-supply
system of the accelerator are briefly described. Designed along conventional

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ACC NR: 007000998

lines, the electromagnet has a gap or interpole space, a maximum flux density of 16000 g in the yoke, and a flux density of 3750 g in the pole shoes. Resonance-circuit current, 300 amp; capacitor bank, 10. microfarads. At 15 Mev, the excitation voltage is 345 v, magnetizing voltage, 6000 v. Electrons are injected at a voltage up to 200 kv. The electron gun has stainless-steel electrodes and is kept under a "floating" potential. A two-tantalum-plate inflector receives 3-microsec 30-kv pulses. A beam-extraction winding carries 15-microsec current pulses up to 2000 amp. The accelerator chambers are exhausted (down to 8×10^{-8} torr) by titanium pumps. Orig. art. has: 8 figures and 2 tables.

SUBCODE: 09, 20 / SUBM DATE: 06Mar66 / ORIG REF: 006

Card 2/2

L 57830-65 EPA(w)-2/EWT(m)/EWP(b)/EWA(m)-2/EWP(t) Pt-7/Pab-10 IJF(c)

ACCESSION NR: AR4049406

S/0275/64/000/009/A009, A010
621.527

SOURCE: Ref. zh. Elektronika i yeye primeneniye. Svodnyy tom, Abs. 9A46

AUTHOR: Vlasov, A. G.; Ponomarev, V. P.

TITLE: Using the titanium pumps for exhausting betatron chambers

CITED SOURCE: Sb. Elektron. uskoriteli. M.. Vyssh. shkola. 1964. 386-391

TRANSLATION: The widely-used method of obtaining high vacuum in the betatron acceleration chamber by continuous operation of an oil-vapor diffusion pump does not ensure necessary requirements and has some shortcomings. Modern titanium ion-sorption pumps contribute to a considerable improvement in the characteristics of the accelerator vacuum system; however, the available pump models are bulky and complicated and hence cannot be used for exhausting betatrons. A small-size pump has been developed, in which the titanium atomization is effected by electron-bombardment heating. A tungsten 0.5-mm wire spiral cathode is placed between the titanium collectors to which an a-c voltage of 1200 v is applied. The pump chamber is exhausted by a rough-vacuum pump succeeded by a special

Card 1/2

L 57830-65

ACCESSION NR: AR4049406

starter that consists of a tungsten 0.5-mm wire around which a titanium current-carrying wire is wound; the starter reduces the pressure from 10^{-2} torr to 10^{-4} torr. The pump parameters are: cathode current, 12--15 A; collector current, 80--100 mA (per one collector); cathode voltage, 4--6 V; collector voltage, 1200 V, minimum pressure, 8×10^{-8} torr; output rate, 30 lit/sec at 5×10^{-8} torr. The seals between

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SUB CODE: NP

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Card 2/2

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342120014-3"

BUGAYEV, S.P.; PONOMAREV, V.P.

Device for the cementing of vacuum chambers of accelerators.
Prib. i tekhn. eksp. 9 no.3:215 My-Je '64 (MIRA 18:1)

1. Nauchno-issledovatel'skiy institut yadernoy fiziki pri
Tomskom politekhnicheskoye institute.

TSYRUL'NIKOV, A.S.; PONOMAREV, V.P. [Ponomar'ov, V.P.]

Working capacity of a ventilation stream around excavating machines.
Dop. AN URSR no.3:373-376 '63. (MIRA 17:10)

1. Institut teploenergetiki AN UkrSSR. Predstavleno akademikom AN
UkrSSR O.H. Shcherbanem [Shcherban', O.H.].

VLASOV, A.G.; PONOMAREV, V.P.; SHIVYRTALOV, M.T.; SHCHENIN, P.M.

Vacuum systems for electron accelerators. Izv. TPI
122:99-107 '62. (MIRA 17:9)

RONOMAREV, V.P.

Results of a study of the interaction of an impact working part
when breaking down frozen and hard soils. Stroi. i dor. mash.
8 no.2:17-19 F '63. (MIRA 16:3)
(Earthwork) (Frozen ground)

PONOMAREV, V.P.

Closed vacuum system of a betatron equipped with a titanium pump.
Prib. i tekhn. eksp. 8 no.2:121-124 Mr-Apr '63. (MIRA 16:4)

1. Nauchno-issledovatel'skiy institut yadernoy fiziki, elektroniki i
avtomatiki pri TPI.
(Betatron)

L 11374-63

ENT(m)/BDS/ES(w)-2 AFFTG/ASD/ESD-3/SSD Pab-4 IJP(C)
S/120/63/000/002/027/041

62

AUTHOR: Ponomarev, V. P.

TITLE: Closed betatron vacuum system with a titanium pump

PERIODICAL: Priory i tekhnika eksperimenta, March-April 1963, v. 8, no. 2,
121-124

TEXT: The article describes two designs for closed vacuum systems for 25 Mev betatrons, the vacuum systems provide an operating vacuum of $(1-3)10^{-6}$ mm Hg. These systems, which have temporarily sealed chambers, have many advantages over systems with permanently sealed chambers or dynamic vacuum systems with oil-diffusion pumps. There are nine figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut yadernoy fiziki, elektroniki i avtomatiki pri TPI (Scientific-Research Institute for Nuclear Physics, Electronics, and Automation at the Tomsk Polytechnic Institute)

SUBMITTED: June 16, 1962

Card 1/1

ja/ll

PONOMAREV, V.P., gornyy inzh.

Flow structure of rapid ventilation over the mining machinery.

Ugol: Ukr. 5 no.12:25-26 D '61.

(MIRA 14:12)

(Mine ventilation)

PONOMAREV, V.P. [Ponomar'ov, V.P.]

Investigating the velocity pulsations of the ventilating air stream over the "Donbas" coal cutter by the use of cinematography.
Dop. AN URSR no.1:58-62 '62. (MIRA 15:2)

1. Institut teploenergetiki AN USSR. Predstavleno akademikom AN USSR A.N.Shcherbanem [Shcherban', O.N.]
(Mine ventilation)

PONOMAREV, V.P.

Increasing the precision of case-hardened gear wheels. Stan.1 instr.32
no.3:17-19 Mr '61. (MIRA 14'3)

(Gearing)

(Case hardening)

S/121/61/000/003/003/006
D040/D112

AUTHOR: Ponomarev, V.P.

TITLE: Improving the accuracy of carburized gears

PERIODICAL: Stanki i instrument, no.3, 1961, 17-19

TEXT: Results are given of an experimental investigation of deformation caused by heat treatment in gears produced from 18XHB~~A~~ (18KhNVA) and 20X2H4A (20Kh2N4A), and recommendations for selecting the proper allowance for machining after heat treatment. Gears of these steel grades are used in the drives of transportation machines. The required heat treatment consists in carburization to a depth of 1.6 - 1.9 mm, normalization, high tempering, quenching and low tempering. The hardness of the carburized layer is not below RC 60, and of the core - RC 35 - 45. The greatest deformation was stated to be caused by normalization after carburization, when the deepest scale forms on the metal. The investigated samples were heated in molten salts to eliminate the formation of scale. All the carburized specimens increased in diameter and decreased in length after quenching, and the tooth thickness of the gears increased (less at the top of the addendum

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S/121/61/000/003/003/006
D040/D112

Improving the accuracy of carburized gears

that on dedendum). The scale formation had a marked effect on the shape and dimensions of the teeth. The thickest scale, 0.025-0.030 mm, formed during normalization. The removal of scale by the usual sand blasting process was stated to cause additional changes of dimensions due to the fact that an uneven layer of metal 0.005-0.035 mm thick was removed together with scale. Definite regularities were revealed in deformation caused by heat treatment, and a general formula derived for determining the grinding allowance (Δ):

$$\Delta = 2 \left[(H_a + T_a) + \sqrt{\rho_a^2 + \varepsilon_b^2} \right],$$


where H_a is height of surface roughness after finish gear cutting; T_a - depth of faulty metal layer; ρ_a - total value of the surface deviations of the machined surface; ε_b - setting error. The formula for determining ρ_a - the total of all the errors - is included, with a reference to a publication (N.A. Borodachev, Analiz kachestva i tochnosti proizvodstva/Analysis of production quality and accuracy/, Mashgiz, Moscow, 1946), and another formula, recommended by Professor V.M. Kovan, is given (where the T_a value is eliminated). The article includes a practical example of calculating the allow-

Card 2/3

Improving the accuracy of carburized gears

S/121/61/000/003/003/006
D040/D112

ance for grinding. The empirically established allowances for gear teeth grinding are a minimum of 0.26 mm and a maximum of 0.66 mm. Gas carburization used at the Uralvagon Zavod (Ural RR Car Plant) for some gears makes it possible to eliminate subsequent normalization, resulting in a 30-40% reduction in deformation and less scale. [Abstracter's note: Details of the gas carburization process are not given], and gear-cutting tools are being corrected to compensate for the changes in the tooth shape taking place during heat treatment. The formula for the cutting tool correction is given. The finishing tools used now at the plant have flank angles of 19°48', 19°50' and 19°52' instead of the standard 20°. I.U. Druzhinin is mentioned as the designer of an instrument for checking the precision of gear hobs at the Ural RR Car Plant. There are 8 figures and 3 Soviet references.



Card 3/3

PONOMAREV, Vasilii Petrovich, kand.biolog.nauk; POPOVA, M.I., red.;
KREYS, I.G., tekhn.red.

[School excursions to places of agricultural production]
Shkol'nye ekskursii v sel'skokhoziaistvennoe proizvodstvo;
iz opyta raboty. Moskva, Gos.uchebno-pedagog.izd-vo M-va
prosv.RSFSR, 1960. 156 p.

(School excursions)

(MIRA 14:1)

(Agriculture--Study and teaching)

SHUNAYEV, B.K.; SAMOKHVALOV, S.A.; PONOMAREV, V.P.

Instruments for checking bevel worm hubs. Stan. 1 instr. 30 no.1:
25-27 Ja '59. (MIRA 12:1)
(Metal-cutting tools--Testing) (Measuring instruments)

ASTASHEV, Gennadiy Kuz'mich; TURGUNOV, Dadakhan Turgunovich; MATVIYENKO, Nikolay Andreyevich; TARASOV, Viktor Pavlovich; PONOMAREV, V.S., inzh., retsenzent; KISELEVA, N.P., inzh., red.; VOROTNIKOVA, L.F., tekhn. red.

[Eliminating the malfunctioning of the TGM3 diesel switching locomotive] Ustranenie neispravnostei manevrovogo teplovoza TGM3. Moskva, Vses.izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1961. 45 p. (MIRA 15:2)
(Diesel locomotives--Maintenance and repair)

PONOMAREV, V.S.

Density of cells in the vestibular nuclei in man [with summary in English]. Vopr.neirokhir. 22 no.4:24-27 J1-Ag '58 (MIRA 11:9)

1. Nauchno-issledovatel'skiy ordena Trudovogo Krasnogo Znameni institut neyrokhirurgii imeni akad. N.N. Burdenko AMN. SSSR.
(NERVES, VESTIBULAR, anatomy & histol.
cell density in vestibular nuclei (Rus))

BELYAKOV, Ye.P.; KONOVALOV, V.S.; NARTOV, G.I.; PONOMAREV, V.S.;
STUDNITSYNA, K.P., red.; ALEKSEYEVA, T.V., tekhn. red.

[Rolling stock and equipment of railroad and city
transportation; catalog-handbook] Podvizhnoi sostav i
oborudovanie zheleznodorozhnogo i gorodskogo transporta;
katalog-spravochnik. Moskva, TsNIIMASH. Sec.1. 1962. 219p.
(MIRA 16:8)

(Streetcars) (Railroads--Rolling stock)

PONOMAREV, V.S.

Change the instructions for the use of dismountable railroad motor cars. Avtom., telem. i svyaz' 2 no. 8:44 Ag '58. (MIRA 11:8)

1. Nachal'nik Gmel'skoy distantzii signalizatsii i svyazi Belorusskoy dorogi.

(Railroad motor cars)

PONOMAREV, V.S.

Cellular structure of the vestibular nuclei of the brain stem in man. Arkh.anat.gist.i embr. 39 no.9:11-15 S '60. (MIRA 14:1)

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